About the difficulties of local anesthesia for prevention of trigeminocardiac reflex occurring under general anesthesia

Lübbers, H T ; Zweifel, D ; Grätz, K W ; Kruse, A

DOI: https://doi.org/10.1016/j.joms.2010.10.048

About the Difficulties of Local Anesthesia for Prevention of Trigeminocardiac Reflex Occurring Under General Anesthesia.

We thank Dr. Krishnan for his contribution. We agree that local anesthesia can inhibit the occurrence of Trigeminocardiac reflex (TCR) and that it should be a basic part of any maxillofacial procedure, even under general anesthesia. It is perhaps because local anesthesia is such a basic measure that we failed to mention it explicitly.

However, we do not agree that this has any impact on the classification and its conclusions as proposed in the article.[1] First, we do not recommend prophylactic administration of vagolytic drugs before any manipulation known to be risky but only before "high risk procedures" according to our classification.[1] For craniomaxillofacial surgery, this would include "orbital extenteration" and "fractures in children with cardiac disease." Both procedures are those in which it is not possible to achieve complete local anesthesia blocks. Second, local anesthesia is known to fail or be incomplete in a number of cases, which Krishan himself discusses when he cites Webb and Unkel's case of a TCR due to possible inadequacy of local anesthesia.[2] Especially under general anesthesia, there is no way to assure whether an anesthetic block is complete.

Third, there are procedures that carry the risk of TCR, but in which we prefer not to use local anesthetics, with or without vasoconstrictors, such as facial trauma with possible damage to blood vessels or the facial nerve. We want to find all sources of bleeding and be able to trigger artificially facial nerve branches. Both are avoided by vasoconstrictors and local anesthetics, respectively. Additionally, even though in parts methodically unclear and from the physiological pathway hypothetic, there is some evidence for TCR occurring under complete local anesthetic block.[3, 4]

We certainly agree that sufficient local anesthesia in addition to general

anesthesia might prevent a number of TCR events in maxillofacial surgery, but unfortunately, this strategy is not applicable to many situations in cranio-maxillofacial surgery. However, whenever suitable, we would also administer local anesthetics—preferably with vasoconstrictors—for the aforementioned reasons and would therefore concur with our colleague Dr. Krishnan.

References

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